

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: FAIL-SAFE

Report Number: P488705

Luminaire Tested: **CLM-12-4-INS-A19156-LD4-2STD-35-120-EDD**

Issue Date: 3/11/2021

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.



Test Information

Test Method: LM-79-08
Report Number: P488705
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2101-115-8)
Test Lab: INNOVATION CENTER
Issue Date: 3/11/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: CLM-12-4-INS-A19156-LD4-2STD-35-120-EDD
Description: 1X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

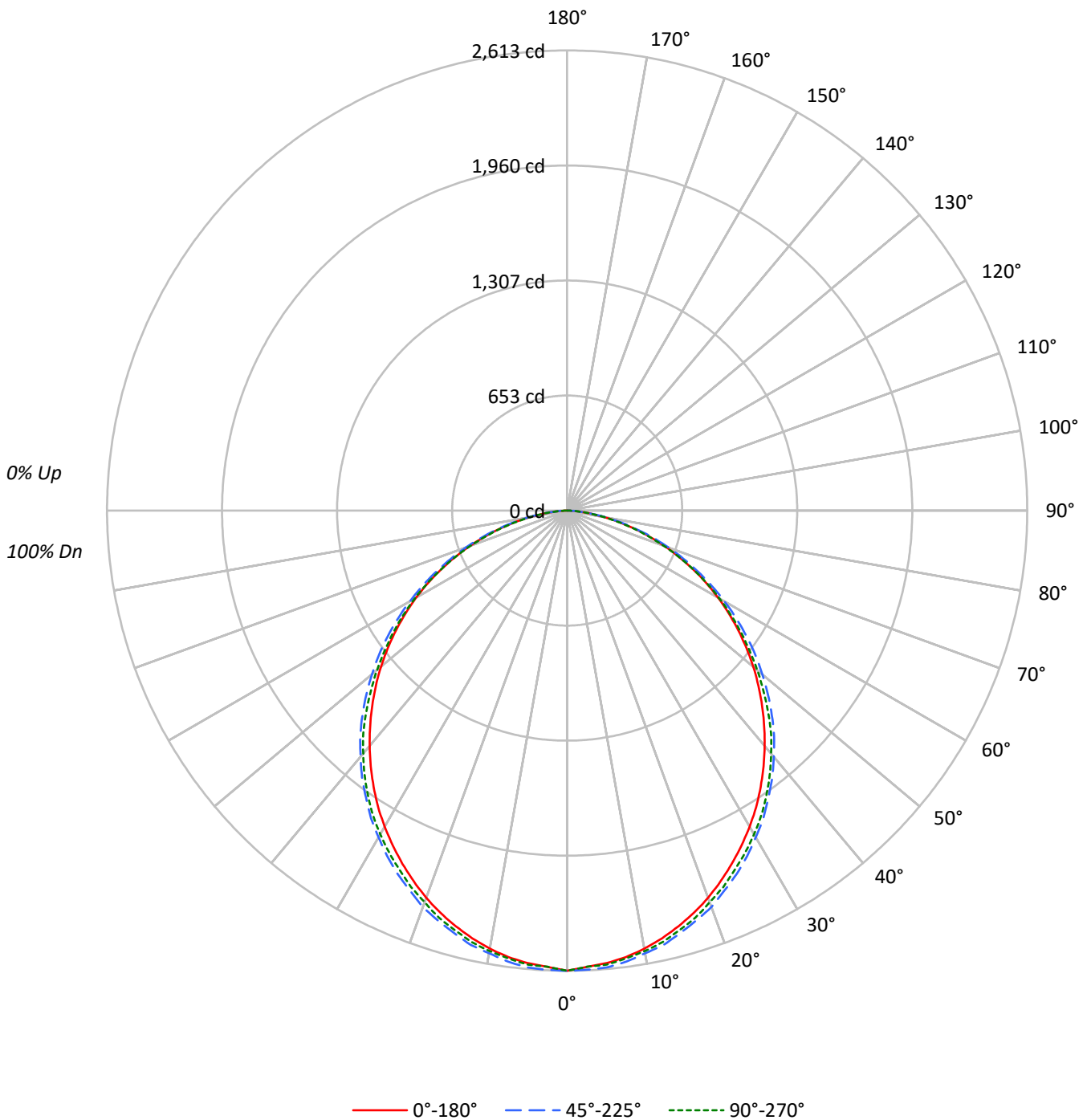
Lumens per Lamp: N/A
Luminaire Lumens: 6870.7 lumens
Efficiency: N/A
Efficacy: 103.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 66.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	105	100	97	106	102	98	95	98	95	92	94	92	89	91	88	87	85
2	99	91	85	79	97	90	83	78	86	81	76	83	78	75	80	76	73	71
3	91	80	72	66	88	79	71	65	76	70	64	73	68	63	71	66	62	60
4	83	71	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54	51
5	77	64	55	48	75	63	54	48	61	53	48	59	52	47	57	51	47	45
6	71	58	49	42	69	57	48	42	55	47	42	53	47	41	52	46	41	39
7	66	52	44	38	64	51	43	37	50	43	37	49	42	37	47	41	37	35
8	61	48	39	34	60	47	39	33	46	38	33	45	38	33	43	37	33	31
9	57	44	36	30	56	43	35	30	42	35	30	41	35	30	40	34	30	28
10	54	41	33	27	52	40	32	27	39	32	27	38	32	27	37	31	27	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7033	7033	7033
5°	6967	7033	6990
10°	6904	6974	6940
15°	6808	6918	6869
20°	6701	6860	6777
25°	6570	6761	6684
30°	6438	6656	6595
35°	6293	6542	6481
40°	6129	6411	6330
45°	5957	6258	6140
50°	5778	6057	5899
55°	5568	5829	5650
60°	5331	5553	5381
65°	5025	5217	5028
70°	4623	4810	4572
75°	4070	4255	4009
80°	3309	3451	3270
85°	2303	2455	2396



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	246.1	3.6
10°-20°	697.5	10.2
20°-30°	1040.2	15.1
30°-40°	1232.7	17.9
40°-50°	1247.3	18.2
50°-60°	1089.3	15.9
60°-70°	796.0	11.6
70°-80°	423.6	6.2
80°-90°	97.9	1.4
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1983.8	28.9
0°-40°	3216.6	46.8
0°-60°	5553.2	80.8
0°-90°	6870.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6870.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2613	2613	2613	2613	2613	
5°	2579	2584	2604	2610	2588	245
15°	2444	2460	2483	2498	2466	689
25°	2213	2240	2277	2286	2251	1019
35°	1916	1946	1992	2005	1973	1198
45°	1565	1593	1644	1646	1613	1208
55°	1187	1211	1242	1224	1204	1061
65°	789	805	819	803	790	781
75°	392	400	409	394	386	416
85°	75	76	80	80	78	94
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2613.4	2613.4	2613.4	2613.4	2613.4
2.5°	2592.9	2601.4	2610.1	2613.9	2592.7
5°	2579.3	2584.2	2603.6	2609.6	2587.5
7.5°	2557.0	2564.4	2583.1	2585.9	2564.6
10°	2526.5	2539.6	2552.1	2565.7	2539.9
12.5°	2487.6	2505.3	2526.5	2529.0	2509.4
15°	2443.7	2460.1	2483.2	2498.2	2465.8
17.5°	2394.7	2410.5	2440.5	2443.2	2423.6
20°	2340.0	2359.6	2395.5	2401.8	2366.7
22.5°	2277.9	2304.3	2334.3	2340.3	2314.4
25°	2212.8	2240.1	2277.1	2285.5	2251.0
27.5°	2144.8	2170.9	2212.6	2218.6	2189.4
30°	2071.8	2096.3	2142.0	2152.1	2122.4
32.5°	1997.7	2022.2	2072.9	2081.3	2052.5
35°	1915.5	1945.5	1991.5	2005.4	1973.0
37.5°	1831.6	1860.8	1913.1	1925.6	1890.7
40°	1744.8	1773.6	1825.1	1835.5	1802.0
42.5°	1656.0	1684.9	1739.9	1741.5	1713.7
45°	1565.4	1593.1	1644.3	1645.7	1613.3
47.5°	1473.3	1501.4	1547.1	1541.9	1511.4
50°	1380.2	1406.9	1446.9	1436.6	1409.1
52.5°	1283.8	1309.7	1347.5	1330.6	1304.8
55°	1186.9	1210.8	1242.4	1224.5	1204.3
57.5°	1089.1	1113.4	1137.6	1119.4	1101.9
60°	990.6	1011.8	1031.7	1013.2	999.8
62.5°	890.4	908.6	925.8	908.1	895.5
65°	789.1	805.1	819.3	803.0	789.6
67.5°	688.3	701.9	715.0	698.1	684.2
70°	587.6	599.3	611.3	593.8	581.1
72.5°	488.2	498.5	509.2	492.3	481.1
75°	391.5	400.5	409.2	394.3	385.6
77.5°	299.2	306.9	312.9	303.3	294.9
80°	213.5	219.2	222.7	218.9	211.0
82.5°	137.2	141.3	143.2	142.9	137.8
85°	74.6	76.0	79.5	80.3	77.6
87.5°	28.9	30.8	31.6	34.0	31.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)